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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,716	10/06/2006	Juan Manuel Pedraza Sanz	130260.00201	3258
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EXAMINER				
ANGWIN, DAVID PATRICK				
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3729				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/599,716

**Applicant(s)**

PEDRAZA SANZ, JUAN MANUEL

**Examiner**

DAVID P. ANGIN

**Art Unit**

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 4 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) 1, 3 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### **Continued Examination Under 37 CFR 1.114**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/3/10 has been entered.

### **Claim Rejections – 35 USC § 103**

The following is a quotation of 35 U.S.C. § 103(a) that forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically taught or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claim 7** is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Okuda et al* (JP 11-345732) in view of *Hartwig* (DE 2530312).

a. *Okuda et al* discloses the following:

- i. a control unit (Figs. 1, 3, 4, and 9, items 121 and 124; *includes rise and fall cylinder item 124 that controls pressure on items W1 and W2*);

a pressure head (Figs. 1, 3, 4, and 9, items 123, 126, and 127; *items 123, 126, and 127 apply pressure to items W1 and W2*) operably connected to the control unit and mounted on a support (Figs. 1, 3, 4, and 9, items 30, 101, and 122) on which the pressure head pivots between a resting position (*inherent – position before or after wire inserted and when no wire being wound*) and a working position (*inherent – position when wire inserted and wire being wound*), the pressure head having a vertical axle (Fig. 3, items 123 and 126; *axle holding wheel item 126 and axle holding auxiliary horizontal disc item 123; applies pressure to coil in vertical direction*) and a horizontal axle (Fig. 3, *axle holding wheel item 127; applies pressure to coil in horizontal direction*);

at least one vertical wheel (Fig. 3, items 123 and 126) mounted on the vertical axle and positioned to accept a conductor material and regulate height and flatness in a coil formed in the conductor material, wherein the at least one vertical wheel comprises at least one auxiliary horizontal disc (Fig. 3, item 123; *item 123 provides counter pressure to item 126*) positioned such that when the conductor material is fed into the pressure head the conductor material maintains contact with the at least one vertical wheel;

at least one horizontal wheel (Fig. 3, item 127) mounted on the horizontal axle positioned to accept the conductor material (Fig. 3, item 25) and position the conductor material on top of the previously formed coil (Fig. 1 shows items 126 and 127 *guiding the conductor material on top of the previously formed coil*);

at least one cylinder (Fig. 4, item 124) attached to the vertical and horizontal axes, the cylinder operably connected to the control unit

and configured to adjust coiling pressure exerted on the conductor material by adjusting hydraulic pressure on the axles; and

a conductor feeder (Figs. 3 and 7, items 20 and 61) mounted on the support, the feeder comprising a set of clamps (Figs. 3 and 7, item 64) such that the conductor to be coiled is positioned tangent to the vertical and horizontal wheels, thus eliminating traction tensions in the conductor as well as a risk of stretching the conductor during coiling.

- b. Regarding claim 7, in addition to the above limitations, *Okuda et al* may not expressly disclose utilizing at least one hydraulic cylinder attached to the vertical and horizontal axles, the hydraulic cylinder operably connected to the control unit and configured to adjust coiling pressure exerted on the conductor material by adjusting hydraulic pressure on the axles.
- i. However, *Hartwig* teaches in his reference at least one hydraulic cylinder (2:45) used during coiling, the hydraulic cylinder operably connected to a control unit and configured to adjust coiling pressure exerted on the conductor material by adjusting hydraulic pressure (2:33-48; Figs. 1-2). The advantage of utilizing at least one hydraulic cylinder used during coiling, the hydraulic cylinder operably connected to the control unit and configured to adjust coiling pressure exerted on the conductor material by adjusting hydraulic pressure is to more precisely control the winding process. Thus, it would have been obvious to utilize at least one hydraulic cylinder attached to the vertical and horizontal axles, the hydraulic cylinder operably connected to the control unit and configured to adjust coiling pressure exerted on the conductor material by adjusting hydraulic pressure on the axles to more precisely control the winding process.

**Claims 10-11** are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Okuda et al* (JP 11-345732) in view of *Hartwig* (DE 2530312) and further in view of *Stjepan et al* (US 6,910,360).

- a. Regarding claims 10-11, in addition to the limitations in claim 7, *Okuda et al* may not expressly disclose utilizing a control unit that comprises a user interface having an input device.
  - i. However, *Stjepan et al* further teaches in his reference utilizing a control unit that comprises a user interface having an input device and an input/output interface (Figs. 1 and 10-11, item 142; 5:33-57; *the input/output device designed to control pressure actuators 84a-b*). The advantage of utilizing a control unit that comprises a user interface having an input device and an input/output interface is to more precisely and effectively automate the process. Therefore, it would have been obvious to utilize a control unit that comprises a user interface having an input device and an input/output interface to more precisely and effectively automate the process.

**Claim 8** is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Okuda et al* (JP 11-345732) in view of *Hartwig* (DE 2530312) and further in view of *Chang et al* (US Patent 5,644,486).

- a. Regarding claim 8, in addition to the limitations in claim 7, *Okuda et al* as modified may not expressly disclose that the control unit transmits commands to the hydraulic cylinder to maintain the coiling pressure on the vertical and horizontal axes according to an acceptable pressure threshold.
  - i. However, *Hartwig et al* teaches in his reference utilizing a control unit that controls a hydraulic cylinder to maintain the coiling pressure within an acceptable pressure threshold (Fig. 2; 2:31-48).

The advantage of utilizing a control unit that controls a hydraulic cylinder to maintain the coiling pressure within an acceptable pressure threshold is to precisely control the movement of mechanical devices. Thus, it would have been obvious to utilize a control unit that controls a hydraulic cylinder to maintain the coiling pressure within an acceptable pressure threshold to precisely control the movement of mechanical devices.

- ii. In addition, *Chang et al* teaches in his reference a control unit (1:10-23; Fig. 1) that transmits commands to mechanical devices. The advantage of using a control unit to transmit commands to mechanical devices is to precisely control the movement of the mechanical devices. Thus, it would have been obvious to use a control unit to transmit commands to the hydraulic cylinder to maintain the coiling pressure on the vertical and horizontal axes according to an acceptable pressure threshold.

**Claims 9 and 12** are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Okuda et al* (JP 11-345732) in view of *Hartwig* (DE 2530312) and further in view of *Chang et al* (US Patent 5,644,486) and *Stjepan et al* (US 6,910,360).

- a. Regarding claim 9, in addition to the limitations in claim 8, *Okuda et al* as modified may not expressly disclose that the control unit determines the commands to transmit based upon a shape of a coil to be manufactured, a number of turns of a coil to be manufactured, and any programmed stops for manual work on the coil.
- i. However, *Stjepan et al* further teaches in his reference utilizing a control unit to determine the commands to transmit based upon a shape of a coil to be manufactured, a number of turns of a coil to be manufactured, and any programmed stops for manual work on the coil (Figs. 10-11; 5:33-57). The advantage of utilizing a control unit to determine the commands to transmit based upon a shape of a coil to be manufactured, a number of turns of a coil to be manufactured, and any programmed stops for manual work on the coil is to precisely and effectively coil wire. Thus, it would have

been obvious to utilize a control unit to determine the commands to transmit based upon a shape of a coil to be manufactured, a number of turns of a coil to be manufactured, and any programmed stops for manual work on the coil is to precisely and effectively coil wire.

- b. Regarding claim 12, in addition to the limitations in claim 8, *Okuda et al* may not expressly disclose utilizing a control unit that outputs data via a communications network, the data including at least one of dimensions of finished coils, coiling time, programmed stop time, set up time, and any alarms.
- i. However, *Stjepan et al* further teaches in his reference utilizing a control unit that outputs data via a communications network, the data including at least one of dimensions of finished coils, coiling time, programmed stop time, set up time, and any alarms (Figs. 10-11; 5:33-57). The advantage of utilizing a control unit that outputs data via a communications network, the data including at least one of dimensions of finished coils, coiling time, programmed stop time, set up time, and any alarms is to more precisely and effectively automate the process. Therefore, it would have been obvious to utilizing a control unit that outputs data via a communications network, the data including at least one of dimensions of finished coils, coiling time, programmed stop time, set up time, and any alarms to more precisely and effectively automate the process.

### **Response to Arguments**

Applicant's arguments filed 5/3/10 have been fully considered but they are not persuasive.

First, the applicant argues that the references do not disclose "[a] pressure head operably connected to the control unit and mounted on a support on which the pressure head pivots, the pressure head having a vertical axle and horizontal axle" (*applicant's*



*arguments*, 5:24-27). Specifically, the applicant argues that item 121 is "rigidly mounted" to item 122. However, the examiner notes that pressure head items 126 and 127 (*wheel/axle combination associated with wheel items 126 and 127 that apply pressure to wires W1 and W2*) maintain pressure on the wires and rotate at locations around the support item 122. In addition, rise and fall cylinder item 124 controls the pressure on wires items W1 and W2. Therefore, the examiner maintains the rejection.

Second, the applicant argues that the references do not disclose "[a]t least one vertical wheel mounted on the vertical axle and positioned to accept a conductor material and regulate height and flatness in a coil formed in the conductor material, wherein the at least one vertical wheel comprises at least one horizontal disc positioned such that when the conductor material is fed into the pressure head the conductor material maintains contact with the at least one vertical wheel" (*applicant's arguments*, 5:28-6:4). However, the examiner disagrees. Vertical wheel (Figs. 1, 3, 4, and 9, item 126; *item 126 controls vertical height and positioning of items W1 and W2 in coil*). In addition, opposing horizontal disc (Figs. 1, 3, 4, and 9, item 123; *item 123 is horizontal and opposes item 126*) provides the wires items W1 and W2 with opposition to item 126. Therefore, the examiner maintains the rejection.

Third, the applicant argues that the references do not disclose "[a]t least one horizontal wheel mounted on the horizontal axle positioned to accept the conductor material and position the conductor material on top of the previously formed coil" (*applicant's arguments*, 6:5-7). However, the examiner disagrees. Items 126 and 127 in combination position the conductor material on top of the previously formed coil (*the*

*examiner notes that multiple coils are shown in Fig. 1, item 25 – and each successive coil is formed above the previous one).* Therefore, the examiner maintains the rejection.

The examiner notes that amendments in one of the following areas will be viewed favorably:

- describe a "pressure head" to exclude use of *Okuda et al* items 126 and 127 (wheel/axle combination); or
- describe the type of movement of the "pressure head" around the "support" to exclude use of *Okuda et al* items 126 and 127.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Angwin whose telephone number is 571-270-3735. The examiner can normally be reached on 7:30 AM - 5 PM (M-F). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks, can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at

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866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David P. Angwin/  
Examiner, Art Unit 3729

DPA